

### **In the Specification**

Please amend the Paragraph of Page 4, lines 8–13, to read as follows:

According to ~~the preferred embodiments~~ further features of the invention described below, the ~~pressure applicator~~ probe is configured to be applied to a relatively restricted area of the subject's skin to apply the static pressure to ~~asaid~~ relatively restricted area, of the subject's skin, which area ~~occupies a relatively small fraction of the surface perimeter of~~ does not completely encircle the respective body part at the measurement site; the pressure applicator occupying a relatively small fraction of the surface perimeter of the respective body part at the measurement site, to thereby permit free venous drainage from the measurement site via a wide region of unrestricted passageways surrounding the measurement site.

Please revise the paragraph of Page 6, lines 13–23, to read as follows:

In contrast, the probes constructed in accordance with the present invention are able to measure arterial pulse signals and their changes from virtually any point on the body surface without causing deleterious venous pooling effects. This is achieved by constructing the probes to apply the appropriate pressure field to a given body surface without completely encircling the body part at the measurement site. Under such circumstances distal venous pooling is avoided since venous drainage can occur freely via alternate, fully unrestricted pathways surrounding the point or region of measurement and thus the need to apply a pressure field extending distally to the terminal end of the extremity is avoided.. At the actual site of the measurement, the applied pressure would be such that the veins would be maintained in a collapsed state save for the transmitted pulsatile arterial throughput.

Please revise the paragraph of Page 15, lines 5–12, to read as follows:

For example, a plurality of body surface probes can be used to obtain simultaneous and comparative measurements from arterial–venous shunt rich palmar surfaces of the hand or plantar surfaces of the foot, and other parts of those limbs which have corresponding surfaces which are ~~arterial–venous surfaces which are arterio–venous~~ shunt poor. Such comparisons may help to accentuate the intensity of autonomic nervous system activation, since arterio–venous rich sites have greater autonomic control. Further applications of the invention utilizing two or more such probes are described below particularly with reference to Figs. 10 – 16.